

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the Application. No new matter has been introduced by way of the claim amendments. Current additions to the claims are noted with underlined text. Current deletions from the claims are indicated by text ~~striketrough~~ or ~~[[double bracketing]]~~. The status of each claim is indicated in parenthetical expression following the claim number.

1 – 40 (Cancelled)

41. (Currently Amended) A composite material, comprising:

- a) CNTs;
- b) ~~a quantity of~~ a fiber reinforcement material; and
- c) a polymer; ~~[[,]]~~

wherein the CNTs ~~serve as a bridge~~, chemically binding the fiber reinforcement material with the polymer.

42. (Original) The composite material of claim 41, wherein the CNTs are silane-functionalized.

43. (Original) The composite material of claim 41, wherein the CNTs are SWNTs.

44. (Original) The composite material of claim 41, wherein the fiber reinforcement material is silane-functionalized.

45. (Currently Amended) The composite material of claim 41, wherein the fiber reinforcement material ~~comprises~~ is glass fibers.

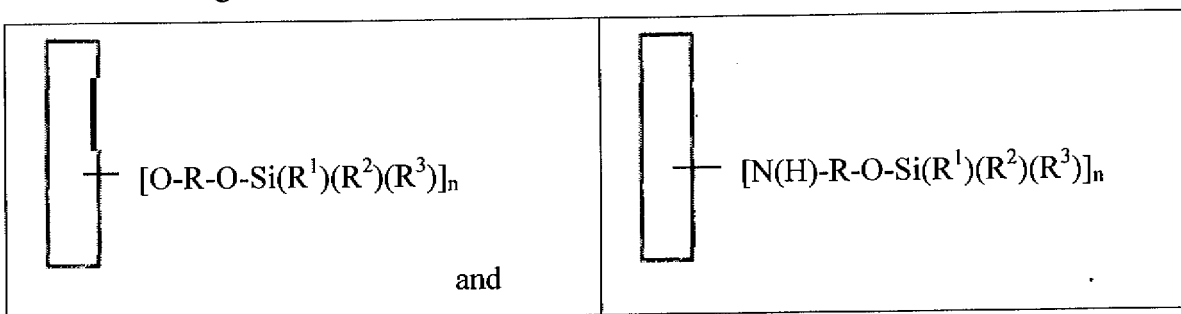
46. (Currently Amended) The composite material of claim 45, wherein the glass fibers have been resized with an organosilane species.

47. (Currently Amended) The composite material of claim 41, wherein the polymer material is an epoxy.

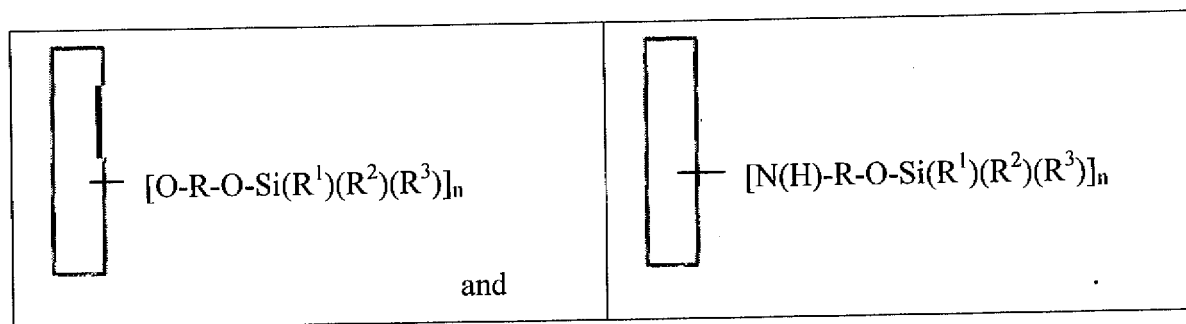
48. (Currently Amended) The composite material of claim 45, wherein the glass fibers are ~~present in a the~~ form of woven sheets.
49. (Currently Amended) The composite material of claim 48, wherein ~~thesuch~~ woven sheets are stacked together with the ~~silane-functionalized~~ CNTs and the polymer between them;[[.]]
wherein the CNTs are silane-functionalized.
50. (Withdrawn—Currently Amended) A method comprising the steps of:
a) providing a quantity of a fiber reinforcement material;
b) adding CNTs to the fiber reinforcement material to form CNT-coated fibers;
c) contacting a polymer material with the CNT-coated fibers to form a composite material; ~~comprising CNTs, a fiber reinforcement material, and polymer material;~~
wherein the CNTs chemically bind the fiber reinforcement material with the polymer.
51. (Withdrawn—Currently Amended) The method of claim 50, wherein the ~~quantity of fiber~~ reinforcement material comprises glass fibers.
52. (Withdrawn—Original) The method of claim 50, wherein the CNTs are selected from the group consisting of SWNTs, MWNTs, double-wall carbon nanotubes, and combinations thereof.
53. (Withdrawn—Original) The method of claim 50, wherein the CNTs are SWNTs.
54. (Withdrawn—Original) The method of claim 50, wherein the CNTs are silane-functionalized.
55. (Withdrawn—Currently Amended) The method of claim 51, wherein the glass fibers are ~~is~~ resized with an organosilane species.

56. (Withdrawn—Currently Amended) The method of claim 50, wherein the step of adding CNTs to the fiber reinforcement material ~~to form CNT-coated fibers~~ comprises an incipient wetting process, said incipient wetting process comprising the steps of:
- a) dispersing the CNTs and the fiber reinforcement material in a solvent to form a mixture; and
 - b) removing ~~thesaid~~ solvent to formleave the CNT-coated fibers ~~coated with CNTs~~.
57. (Withdrawn—Original) The method of claim 56, wherein the CNTs are functionalized.
58. (Withdrawn—Currently Amended) The method of claim 50, wherein the CNTs are chemically bound to the fiber reinforcement material through functional groups originating on either of the CNTs and the fiber reinforcement material.
59. (Withdrawn—Currently Amended) The method of claim 50, wherein the CNTs are chemically bound to the fiber reinforcement material through functional groups originating on both the CNTs and the fiber reinforcement material.
60. (Withdrawn—Original) The method of claim 50, wherein the polymer material is selected from the group consisting of thermosets, thermoplastics, and combinations thereof.
61. (Withdrawn—Currently Amended) The method of claim 50, wherein the polymer material is selected from the group consisting of epoxies, vinylesters, polyester, bismaleimide, polystyrene, polybutadiene, ~~or~~ polyisoprene and combinations thereof.
62. (Withdrawn—Original) The method of claim 50, wherein the polymer material comprises at least one polymer precursor.
63. (Withdrawn—Currently Amended) The method of claim 62, further comprising a step of polymerizing the at least one polymer precursor.
64. (Withdrawn—Currently Amended) The method of claim 62, further comprising a step of curing the at least one polymer precursor.

65. (Withdrawn—Original) The method of claim 50, wherein the fiber reinforcement material is sized with the CNTs.
66. (Withdrawn—Currently Amended) The method of ~~either of~~ claim 58, wherein either of the CNTs and the fiber reinforcement material are chemically bound to the polymer material.
67. (Withdrawn—Currently Amended) The method of ~~either of~~ claim 58, wherein both the CNTs and the fiber reinforcement material are chemically bound to the polymer material.
68. (New) The composite material of claim 41, wherein the CNTs are silane-functionalized and have a general structural formula selected from the group consisting of



69. (New) The composite material of claim 68, wherein R^1 , R^2 and R^3 are independently selected from the group consisting of hydrogen, hydroxyl, thiol, saturated aliphatic hydrocarbons, unsaturated aliphatic hydrocarbons, cycloaliphatic hydrocarbons, aromatic hydrocarbons, amines, amides, esters, ethers, epoxies, silyl, germlyl, stannyl, and combinations thereof.
70. (New) The composite material of claim 68, wherein R is an alkyl group having from 2 to 4 carbon atoms.
71. (Withdrawn—New) The method of claim 50, wherein the CNTs are silane-functionalized and have a general structural formula selected from the group consisting of



72. (Withdrawn—New) The method of claim 71, wherein R^1 , R^2 and R^3 are independently selected from the group consisting of hydrogen, hydroxyl, thiol, saturated aliphatic hydrocarbons, unsaturated aliphatic hydrocarbons, cycloaliphatic hydrocarbons, aromatic hydrocarbons, amines, amides, esters, ethers, epoxies, silyl, germyl, stannyl, and combinations thereof.
73. (Withdrawn—New) The method of claim 71, wherein R is an alkyl group having from 2 to 4 carbon atoms.